

Amendments to the Claims:Listing of Claims:

Claim 1 (currently amended) A capacitive semiconductor pressure sensor comprising: a non-single-crystal-silicon-based substrate selected from the group consisting of glass

5 and quartz;

a conductive movable polysilicon diaphragm;

a polysilicon supporter positioned on the non-single-crystal-silicon-based substrate for fixing two ends of the polysilicon diaphragm and forming a sealed cavity between the polysilicon diaphragm and the non-single-crystal-silicon-based substrate;

10 a stationary electrode directly positioned on the non-single-crystal-silicon-based substrate and below the polysilicon diaphragm, the stationary electrode and the polysilicon diaphragm constituting a plate capacitor; and

a thin film transistor (TFT) control circuit positioned on the non-single-crystal-silicon-based substrate and electrically connected to the plate capacitor.

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Claim 2 (cancelled)

Claim 3 (currently amended) The capacitive semiconductor pressure sensor of claim 1,

20 wherein the TFT control circuit is a low temperature polysilicon TFT control circuit.

Claim 4 (cancelled)

Claim 5 (currently amended) The capacitive semiconductor pressure sensor of claim 1,

25 wherein the TFT control circuit is a high temperature polysilicon TFT control circuit.

Claim 6 (currently amended) The capacitive semiconductor pressure sensor of claim 1, wherein the stationary electrode comprises aluminum (Al), titanium (Ti), platinum (Pt), or alloys.

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Claim 7 (currently amended) The capacitive semiconductor pressure sensor of claim 1, wherein the polysilicon diaphragm and the polysilicon supporter are formed

simultaneously.

Claim 8 (currently amended) The capacitive semiconductor pressure sensor of claim 1, wherein the polysilicon diaphragm is a doped polysilicon diaphragm.

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Claim 9 (currently amended) The capacitive semiconductor pressure sensor of claim 1, wherein the non-single-crystal-silicon-based substrate further comprises a thin film transistor display region for displaying a variation of pressure detected by the capacitive semiconductor pressure sensor.

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Claim 10 (currently amended) A capacitive semiconductor pressure sensor comprising:

an insulating substrate selected from the group consisting of glass and quartz;

a conductive movable diaphragm;

15 a supporter positioned on the insulating substrate for fixing two ends of the diaphragm and forming a sealed cavity between the diaphragm and the insulating substrate;

a stationary electrode directly positioned on the insulating substrate and below the diaphragm; and

a control circuit electrically connected to the diaphragm and the stationary electrode.

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Claim 11 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the stationary electrode comprises aluminum (Al), titanium (Ti), platinum (Pt), or alloys.

25 Claim 12 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the diaphragm and the supporter are formed simultaneously.

Claim 13 (currently amended) The capacitive semiconductor pressure sensor of claim 12, wherein the supporter comprises polysilicon.

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Claim 14 (currently amended) The capacitive semiconductor pressure sensor of claim 13, wherein the diaphragm comprises a doped polysilicon.

Claim 15 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the diaphragm comprises a conductive material.

5 Claim 16 (cancelled)

Claim 17 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the control circuit is positioned on the insulating substrate and the control circuit comprises a low temperature polysilicon thin film transistor control circuit.

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Claim 18 (cancelled)

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Claim 19 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the control circuit is positioned on the insulating substrate and the control circuit comprises a high temperature polysilicon thin film transistor control circuit.

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Claim 20 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the control circuit is positioned on a printed circuit board (PCB) and is electrically connected to the stationary electrode and the diaphragm via a flexible printed circuit (FPC) board.

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Claim 21 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the control circuit is positioned on a flexible printed circuit (FPC) board, the control circuit being electrically connected to the stationary electrode and the diaphragm via the flexible printed circuit board.

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Claim 22 (currently amended) The capacitive semiconductor pressure sensor of claim 10, wherein the insulating substrate further comprises a thin film transistor display region for displaying a variation of pressure detected by the capacitive semiconductor pressure sensor.